Challenge TB - East Africa Region

Year 2

Annual Report

October 1, 2015 – September 30, 2016

November 8, 2016

Cover photo: Dr. Victor Ombeka of Challenge TB offering technical support to the Moyale, Kenya Sub county team at the Moyale Sub County Hospital after the border facility staff sensitization meeting (Credit: Charles Ogolla)

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List of Abbreviations and Acronyms

CBOs	Community Based Organizations
CHD	County Health Director
COE	Center of Excellence
DHIS2	District Health Information System
DST	Drug Susceptibility Testing
EAC	East African Community
ECHO	European Commission, Humanitarian Organization
ECSA	East, Central and Southern Africa
ECSA-HC	East, Central and Southern African Health Community
eLMIS	Electronic logistics management information system
FDC	Fixed Dose Combination
GDF	Global Drug Facility
GF	Global Fund
GFATM	Global Fund for AIDS, Tuberculosis and Malaria
HMC	Health ministers conference
IRB	Institutional Review Board
IOM	International Organization for Migration
KNCV	KNCV Tuberculosis Foundation
MAF	Mission Aviation Fellowship
MDR-TB	Multi Drug resistance TB
MSH	Management Science for Health
NGO	Non-Governmental Organization
NTP	National TB Program
PMDT	Programmatic Management of Multi Drug resistance TB
SLDs	Second line anti-TB drugs
SOPs	Standard Operating Procedures
SNRL	Supranational Reference Laboratory
TB	Tuberculosis
UNHCR	United Nations High Commissioner for Refugees
USAID	United States Agency for International Development
USAID EA	United States Agency for International Development East Africa Bureau
WHO	World Health Organization

XDR-TB	Extensively drug-resistant tuberculosis
Xpert	Gene Xpert MTB/RIF

1. Executive Summary

The East Africa Region Challenge TB (CTB) project was designed to cover activities that are beyond the capacities of individual countries in the region and to develop demonstration/learning sites through which best practices can be generated and shared with other countries for adoption and scale up. To achieve its objective, the East Africa Region CTB project, focuses on the following CTB sub objectives: enabling environment; comprehensive, high quality diagnostics; patient-centered care and treatment; drug and commodity management systems; and human resource development.

Highlights from the East Africa Region CTB project during the period October 1, 2015 – September 30, 2016 (Year 2) are summarized below.

1. Enabling Environment

A two-day East Africa Regional National TB Programs (NTP) Meeting was conducted in April 2016 in Nairobi, Kenya with attendance of NTP managers and monitoring and evaluation (M&E) focal persons from Kenya, Uganda, Somaliland, Somalia, South Sudan and stakeholders from United Nations High commissioner for Refugees (UNHCR), International Organization for Migration (IOM), World Health Organization (WHO) Kenya, World Health Organization (WHO) Somalia, World Vision International, East African Community (EAC), United States Agency for International Development East Africa Bureau (USAID EA bureau). A total of 25 (6 Females, 19 Males) were in attendance. The key outcome of the meeting was the finalization of critical project documents which included: inter country referral tool and protocol; cross border initiative guide; regional coordination secretariat terms of reference; and, criteria for selection for managing TB failures and palliative care sites. The finalized copies of the inter-country referral system tool and protocol were shared with the NTPs from the East and Horn of Africa region. The Uganda NTP and Rwanda NTP have started using the tool, whereby an MDR-TB patient was transferred from Mbarara Hospital in Uganda to Kibagabaga Hospital in Kigali. The lessons learnt from the referral will feed into roll out process of the tools in the border areas.

Out of the six-cross border health facility staff sensitization workshops planned for Year 2, the project conducted four cross border health facility staff sensitization workshops in three counties (Turkana, Marsabit and Garissa) in Kenya and Karamoja area in Uganda reaching a total of 71 (54 M, 17 F) facility staff from 37 health facilities. As a result of the sensitization meeting held in Marsabit county, Kenya 23 TB patients from Ethiopia who had been recorded in a transit register but not notified in the national system have already been notified into the national Tibu system.

2. Comprehensive, high quality diagnostics

The East Africa Region Challenge TB project finalized the translation of the Standard Operating Procedures (SOPs) on TB-Infection Control into the Somali language. These SOPs were initially developed under TB CARE 1. 500 copies of SOPs were printed and distributed to the three regions in Somalia i.e. Somaliland, South central and Puntland. A dissemination workshop for the SOPs is planned for Year 3. The East Africa Region Challenge TB project team will collaborate with the Supranational Reference Laboratory (SNRL) to provide technical assistance on the implementation of the SOPs in Somalia. It is expected that the utilization of the SOPs will enhance bio safety measures in the TB laboratories.

3. Patient-centered care and treatment

Criteria for the identification of a country to implement a pilot/demonstration site on managing MDR treatment failures including palliative care have been developed. The development of the criteria resulted from the input of various stakeholders in the TB field including the regional NTPs. The criteria include availability of isolation facility and equipment for palliative treatment and willingness of the NTP to take a lead. In Year 3 these criteria will guide the identification of the demonstration site (one palliative care site in one country) that is ready to implement palliative care in TB.

4. Drug and commodity management systems

The project supported the development of a TB commodities supply chain portal. This is developed as a regional electronic platform to improve TB commodities data visibility and facilitate monitoring of commodities stock situation to East, Central and Southern Africa(ECSA) countries. This portal contains two major parts: a commodities dashboard and a virtual resources center. The portal is already being piloted in Tanzania. There are plans to also pilot the portal in Rwanda and Uganda after which lessons learned will be used to scale up its use in the East Africa region.

5. Human resource development

During Year 2, two trainings on childhood TB were conducted, a training of trainers in Somalia by the UNION and the other in Rwanda by Center of Excellence for programmatic management of drug resistant TB. A total of 30 (18 M, 12 F) health workers were reached, of whom 27% (8) were international participants.

The Union's Desk Guide on the management of TB in children, originally published in 2010, has been revised and updated with the main revisions including: dosage charts for the newly available fixed dose combination (FDC) formulations for the treatment of TB in children; inclusion of the use of Xpert in the diagnostic approach to a child with presumptive TB; expansion of the section on diagnostic approach and limitations in children; and inclusion of a section on the approach for the management of a child with presumptive MDR TB Published on
http://www.challengetb.org/publications/tools/ua/Deskguide_Childhood_TB_2016.pdf

An e-learning tool for the management of MDR TB in children was finalized; it addresses the management of MDR TB in children with modules including Epidemiology, Diagnosis, Treatment, Prevention, and Practice. The e learning tool can be accessed through
https://childhoodtb.theunion.org/courses/CTB2/en/intro

2. Introduction

The five-year East Africa Region Challenge TB Project team is based in Nairobi and funded by the USAID East African Regional Bureau with KNCV as the lead partner and UNION and MSH as collaborating partners. The project also works closely with the East, Central and Southern Africa Health Community (ECSA-HC) in Tanzania and Rwanda Center of Excellence for Programmatic Management of Drug-resistant TB (COE for PMDT).

The project works in the East and Horn of Africa region and focuses its activities in seven countries: Ethiopia, Kenya, Rwanda, Somalia, South Sudan, Tanzania and Uganda. The project is designed to cover activities that are beyond individual countries capacity and to develop demonstration/learning sites through which best practices can be generated and shared with other countries for adoption and scale up.

This CTB project focuses on two objectives: (1) Improved access to quality patient-centered care for TB, TB/HIV and MDR-TB services and (2) Strengthened TB platforms. To achieve the CTB program objectives, the following overarching strategies under each of the CTB objectives are employed.

(1) Improved access to quality patient-centered care for TB, TB/HIV and MDR-TB services

To realize this objective, the interventions are grouped into three sub-objectives namely:

Sub objective 1: Enabling environment- (1) cross border TB Control, (2) patients inter country referral system;
Sub-objective 2: Comprehensive, high quality diagnostics - Bio-safety measures in laboratories ensured;
Sub objective 3: Patient-centered care and treatment- access to shorter regimens and new drug regimens and care for patients who fail on M/XDR-TB treatment including palliative care;

(2) Strengthened TB platforms

To realize this objective, the interventions are grouped into two sub-objectives namely:
Sub objective 9: Drug and commodity management systems- improving country coordination and anti-TB medicines exchange through procurement and shelf life monitoring;
Sub-objective 11: Human resource development- (1) capacity building in Childhood TB, and (2) Regional Training Corridor (3) Pre-service nursing curriculum TB.

3. Country Achievements by Objective/Sub-Objective

Objective 1. Improved Access

Sub-objective 1. Enabling environment

To improve access to quality patient-centered care for TB, TB/HIV and MDR-TB services, the project is working towards having an effective inter-country patient referral and transfer system with patients who are transferred to another country recorded in a web-based register that will be accessible by all NTPs in the region, that has all required information of the individual patient for continuing appropriate TB treatment and care. To work towards achieving this objective key, activities for year two included: implementation of an effective patient referral and transfer system across three countries in the region (Kenya, Somalia and Tanzania), operationalization of cross-border planning in four high volume border areas including Horn of Africa (KE/SOM, KE/UG, KE/SS, KE/ET) and development of a regional coordination system to enhance networking and multi-country partnerships for cross-border TB control.

Key Results

Implementation of an effective patient referral and transfer system across three countries in the region (Kenya, Somalia and Tanzania)

In Year 2, the inter country referral tool and protocol were finalized during the regional NTP meeting that was held in Kenya in April 2016. The finalized copy of the inter-country referral system tool and protocol was shared with the NTPs from the East and Horn of Africa region. The inter country referral tool is designed to cater for referral of patients from one country to another. Uganda NTP and Rwanda NTP have started using the tool, whereby one MDR-TB patient was successfully transferred from Mbarara Hospital in Uganda to Kibagabaga Hospital in Kigali. From this transfer it was clear that for effective referral to occur there should be clear and ongoing communication between the National Tuberculosis Programs of the two countries involved.

Operationalization of cross-border planning in four high volume border areas including Horn of Africa

Out of the six-cross border health facility staff sensitization workshops planned for Year 2, the project conducted four cross border health facility staff sensitization workshops in three counties (Turkana, Marsabit and Garissa) in Kenya and Karamoja area in Uganda reaching a total of 71 (54 M, 17 F) facility staff from 37 health facilities. Furthermore, four district health officials' sensitization meetings were held in the three counties mentioned in Kenya and one region in Uganda. From the meetings, the teams identified the TB-related issues that needed to be addressed in-country (specifically at the border areas) and those that needed to be addressed by the other side of the border. TB coordinators have been incorporated in the already formed cross border health committee in Garissa and Marsabit. In Moroto region, Uganda, the process of establishing this cross-border health committee has begun. The next step, during Year 3, will be to link the committees from the Kenyan sides with their counterparts in Ethiopia, Somalia, Uganda and South Sudan. This will establish communication channels amongst them and thus enhance case detection and holding in the border areas. In addition, sub awards for Community Based Organizations (CBOs) in the areas of implementation will be completed in Year 3, in order to build the capacity and support the functioning of the cross border health committees.

Table 1: TB related issues identified

TB Issues (In country)	TB Issues (Other side of border)
Lack of GeneXpert services due to lack or inadequate number of GeneXpert machines	Limited cross-border coordination and collaboration
Inadequate knowledge & skills in handling tools	No standardized tools among neighboring counties/registers
High staff turnover in the border counties	No linkage between cross border facilities
In accessibility of remote areas	Defaulter tracing mechanism not in place
Lack of proper and adequate supervision	Low case findings

Lack of TB diagnostic services	Lack of effective referral system
Lack of proper and adequate supervision	Insecurity
Poor data collection and documentation	Pastoral-Nomadic life making it hard to trace them once they cross the border

To guide the implementation of the cross-border activities, the project developed a cross border initiative guide which has so far been used when conducting the cross-border sensitization workshop. The guide was one of the key documents shared with the border health facility staff sensitized to help them get acquainted with the cross-border initiative. Key areas emphasized in the cross border initiative guide include;

- Structure and the working methods of the cross border committees
- Cross border initiative process
- Data collection and reporting tools
- Indicators

Figure 1: Data verification of Referred TB patients in Moyale Sub County Hospital, photo credit by Charles Ogolla

As a result of the sensitization meeting held in Marsabit county, Kenya 23 TB patients from Ethiopia who had been recorded in a transit register but not notified in the national system have already been notified into the national Tibu system.

One of the key reasons for the project not meeting its target was the insecurity in South Sudan and Somalia. To address this the project plans, during Year 3, to invite the Somalia team to Kenya for the sensitization meeting while South Sudan sensitization event will be done later when the security situation stabilizes.

Development of a regional coordination system to enhance networking and multi-country partnerships for cross-border TB control

A two-day East Africa Regional NTP Meeting was conducted with attendance of NTP managers and M&E focal persons from Kenya, Uganda, Somaliland, Somalia, South Sudan and other stakeholders from United Nations High commissioner for Refugees (UNHCR), International Organization for Migration (IOM), World Health Organization (WHO) Kenya, World Health Organization (WHO) Somalia, World Vision International, East African Community (EAC), United States Agency for International Development East Africa Bureau (USAID EA bureau).

A total of 25 (6 Females, 19 Males) attended. The key outcome of the meeting was the finalization of critical project documents, which included; inter country referral tool and protocol, cross border initiative guide, regional coordination secretariat terms of reference and criteria for selection of the TB palliative care demonstration sites.

Figure 2: Regional NTP meeting participants, developing inter country referral system flow chart, photo credited by Mischa Heeger

To ensure efficient coordination of inter country activities, the regional coordination secretariat terms of reference were developed and will aid in the selection of a regional hosting body in the next financial year.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y2
1.4.1	#/% of TB cases (all forms) notified that were referred via cross-border patient referral and transfer system	**Description:** Proportion/Number of TB cases (all forms) reported by border health facilities **Indicator Value:** Number/ Percent **Level:** National and Challenge TB geographic areas **Numerator:** Number of all TB cases (bacteriologically confirmed + clinically diagnosed; includes new & relapse cases)	0	100 cases	24 (One MDR patient was successfully transferred from Uganda to Rwanda using the inter country Referral tool, 23 TB patients from Ethiopia were notified

		reported by providers in the past year who were referred by via cross border patient referral and transfer system **Denominator:** Total number of TB cases (bacteriologically confirmed + clinically diagnosed; includes new & relapse cases) reported by the health facilities in the past year			into Tibu system)

Sub-objective 2. Comprehensive, high quality diagnostics

In Year 2 the project planned to support the SNRL in Uganda in implementing its activities by supporting recurrent costs and salaries of some staff in an interim period as they awaited Global Fund for AIDS, Tuberculosis and Malaria (GFATM) support. Other activities planned were translation of Bio safety SOPs into Somali language, printing of the SOPs as booklets, dissemination of the SOPs to all laboratories in Somalia, monitoring of implementation of SOPs and provision of technical assistance to Somalia for laboratory biosafety implementation.

Key Results

To ensure that the SNRL continued to deliver quality diagnostics a sub-agreement with the SNRL was signed for the retention of three staff (SNRL Manager, Lab manager and a Microbiologist), after which the support was transitioned to Global fund.

With the inputs coming from the Somali laboratory teams, translation of the SOPs on TB-Infection Control into the Somali language was finalized. 500 copies of SOPs were printed and distributed to the three regions in Somalia i.e. Somaliland, South Central and Puntland. The SOP dissemination workshop is planned for Year 3. The project team will collaborate with SNRL to provide technical assistance for the implementation of the SOPs in Somalia. It is expected that the utilization of the SOPs will enhance bio safety measures in the TB laboratories.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target	Result
				Y2	Y2
2.7.1	#/% of laboratories implementing national biosafety standards (stratified by laboratories performing culture, DST and Xpert)	**Description:** This indicator measures proportion of TB labs implementing internationally recommended biosafety standards (stratified by labs performing culture, DST and Xpert). Note that this measurement requires operations research using a valid tool. **Indicator Value:** Percent **Level:** National and Challenge TB geographic areas **Numerator:** Number of TB labs implementing national biosafety standards **Denominator:** Total number of TB labs	1 lab	3 labs	0 (It is anticipated that once the dissemination workshop is conducted and technical assistance provided the laboratories will start implementing the national biosafety standards. This will be assessed during the regular monitoring

Sub-objective 3. Patient-centered care and treatment

In a bid to strengthen the Programmatic management of multi drug resistant TB, The East Africa Region CTB project planned to support development of an X/MDR TB policy, including printing of 50 copies, documentation of the MDR–TB failures in the ECSA-HC region and identification of a country for implementation of a demonstration site for implementing palliative care/new drugs containing regimen.

Key Results

Criteria for the identification of a country to implement a pilot/demonstration site on managing MDR treatment failures including palliative care have been developed. The development of the criteria resulted from the input of various stakeholders in the TB field in the region including the regional NTPs. Part of the criteria includes;

- The NTP is willing to take a lead
- MDR TB guidelines available and in use
- Has an X/MDR-TB treatment facility with in-patient facilities for admission of X/MDR TB patients
- Has criteria for in-/out-patient care developed and implemented for M/XDR-TB care
- Has MDR-TB consilium to decide on necessary X/MDR TB treatment
- Has X/MDR TB patients on treatment
- XDR TB drugs available in the country
- Adjuvant medications are available
- Palliative care expertise is available in a country
- Pharmacovigilance (PV) system is in place
- TB-IC plan at facility level is developed and implemented
- Expert team approach is implemented
- Has a room and equipment that could be used for palliative treatment ward:

In Year 3 these criteria will guide the identification of the demonstration sites that are ready to implement palliative care in TB.

ECSA finalized the Policy on Management of M/XDRTB failures and submitted it for publication and dissemination. The policy will be launched during the 63rd Health Ministers Conference in November 2016 in Swaziland and it is expected to guide in the implementation of PMDT strategies.

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y2
3.2.1	# of demonstration sites ready for implementing palliative care in TB	**Description:** This indicator applies to a site that is ready to offer an approach that improves the quality of life of patients and their families facing the problem associated with life-threatening illness, through the prevention and relief of suffering by means of early identification and impeccable assessment and treatment of pain and other problems, physical, psychosocial and spiritual **Indicator Value:** Number **Level:** National	0	1	0 (the criteria for the selection of palliative care sites has been finalized and thus the process of identification of the demonstration site will be conducted in Year 3)

Objective 3. Strengthened TB Platforms

Sub-objective 9. Drug and commodity management systems

To ensure that the TB platform is strengthened, the project, in Year 2 focused on the development and maintenance of a regional drug management dashboard and supporting the ECSA secretariat to ensure that there is proper coordination of the regional activities.

Key Results

The project could develop the ECSA TB commodities supply chain portal, this portal contained two major parts: a commodities dashboard and a virtual resources center. Tanzania was enrolled in the portal for the pilot phase. The establishment of this regional electronic platform will improve TB commodities data visibility and facilitate monitoring of commodity stock situations in ECSA countries.

Technical assistance was also conducted to ECSA Health Community (ECSAHC) to establish the ECSA TB supply chain portal for the ECSA member states, this involved conceptualizing, designing, and developing the portal and enrolling ECSA member states to the supply chain portal. The key focus of the TA included the collection of TB program reports, policies, and training materials relevant for TB commodities supply chain management. In addition, various stock status data and pipeline information was collected, analyzed, and used to develop Tanzania TB commodities dashboards that will later be incorporated into the regional dashboard and portal.

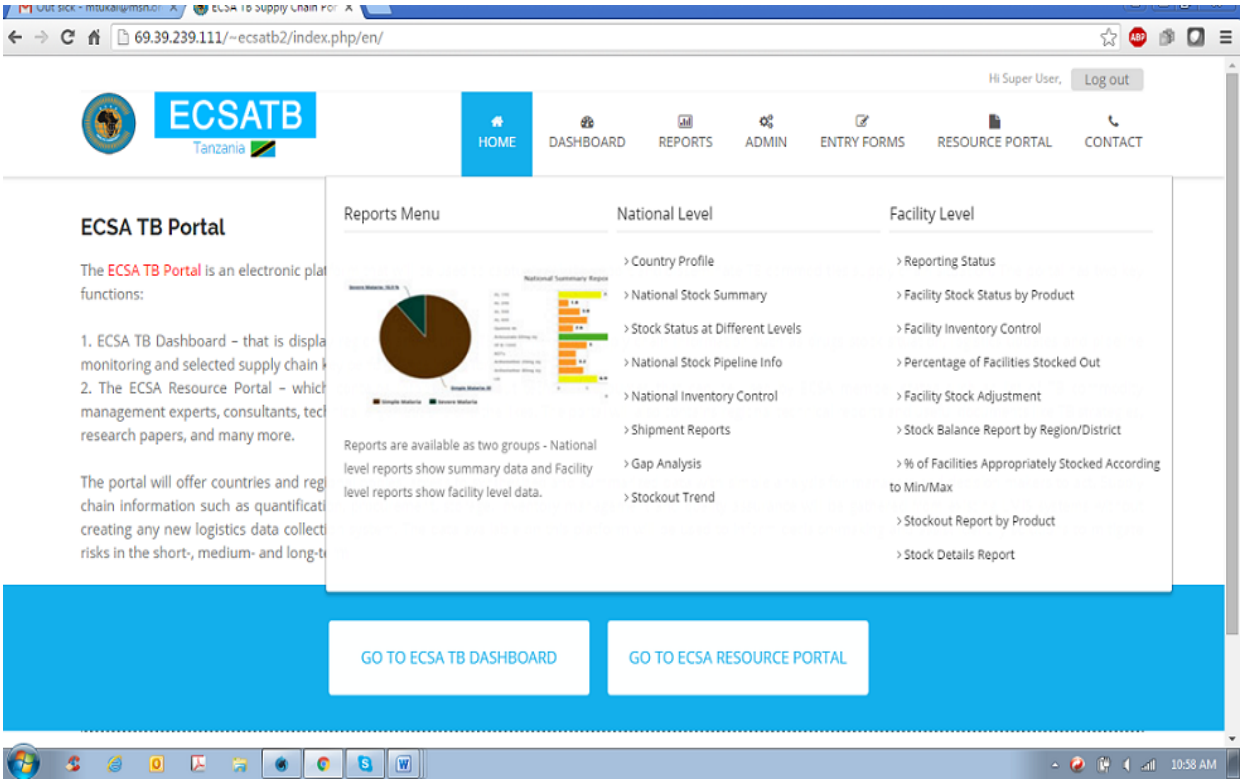

Figure 3:One of the pages in the online supply chain portal

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y2
9.1.1	# of stock outs per [year] of anti-TB drugs, by type (first and second line) and level (ex, national, provincial, district)	**Description**: This indicator should be used to report the number of stock outs of any type of TB drug at any level of the health system that results in interruption of treatment. **Indicator Value**: Number **Level**: This indicator should be reported at whatever level a stock out that results in interruption of treatment occurs.	0	0	N/A The portal got running at the end of the year and other countries have not been enrolled into the system It will be reported in the next year

Sub-objective 11. Human resource development

Under this sub objective the project activities planned evolved around supporting COE to get regional accreditation, establishing a Regional Training Corridor, creating a regional NETWORK of TB/MDR-TB Pediatric experts and operationalization of the Pre-service Competency Based TB Curriculum for Nursing.

Key Results

During the year, two trainings on childhood TB were conducted reaching a total of 30 (18 Males, 12 Females) health workers of which 27% (8) were international participants. The trainings were interactive and included case studies and focused on clinical practices and case management. One of the trainings conducted was for trainer of trainers with the focus towards cascading the knowledge to other health personnel. The training of trainers conducted in Somalia reached a total of 14 (10 M, 4 F) health care workers of which all were locals. The training topics included; epidemiology of child TB, diagnosis of child TB, treatment of child TB, treatment monitoring of children with TB, active case finding and prevention of TB in children, infection prevention and control and MDR TB in children.

The other childhood TB training conducted in Rwanda reached a total of 16 (8M, 8F) health workers of which 8 were internationals (Two from Kenya, two from Uganda, two from Burundi and two from Tanzania). Key training topics include; background and epidemiology of TB/HIV Co-Infection, diagnosis of TB, diagnostic tools, TB treatment in children, TB treatment monitoring/HIV co-infection, childhood TB Prevention, registration and reporting tools.

The Rwanda based Center of Excellence (COE) conducted its 7th international training on PMDT during the year. During this training a total of 20 (4 Females, 16 Males) participants from six countries (i.e. Kenya, Ethiopia, Rwanda, Nigeria, Tanzania and South Sudan) attended. There was remarkable improvement in terms of participants sponsoring themselves with 10 participants (50%) paying for the course as compared to the previous one where all the participants' costs were waived. Of the 20 participants 11 were international while the remaining 9 were local. COE is thus moving in the right direction towards financial sustainability which is an important achievement in its role in PMDT training.

Table 2: Participants in the 7th international training on PMDT

Country	Male	Female	**Total**
South Sudan	2	2	**4**
Nigeria	1	0	**1**

Ethiopia	2	0	**2**
Tanzania	2	0	**2**
Kenya	1	1	**2**
Rwanda	8	1	**9**
Total	**16**	**4**	**20**

Support COE to get regional accreditation

In the process of supporting the COE to get regional accreditation, the project contracted a consultancy firm (Blue Edge Marketing consultants) to develop a business plan for COE in line with its objectives to become a regional center of excellence and support sustainability. Blue Edge has developed the study plan and study tools for the development of the business plan. Due to delays in IRB approval, the field work in Rwanda was affected and thus the business plan will be completed in Year 3.

Establishment of a Regional Training Corridor

An inventory of existing and potential training institutions for the training corridor in the region was developed by the EA region team. In addition to adding other training institutions onto this inventory, TB experts in the region that can offer TB-related training will also be identified and placed in the directory. The project aims to contact the training institutions to begin discussions of how they can be integrated in the formation of the Regional Training Corridor for TB and the courses that they will offer.

Operationalize the Pre-service Competency Based TB Curriculum for Nursing

ECSA reviewed and finalized the Prototype Competency based regional Pre-service Nursing TB Curriculum and continued to engage the Ministry of Health and Social Welfare of the United Republic of Tanzania and the National TB program to identify a Nursing Institution for piloting of the curriculum and training of tutors. ECSA is in the process of identifying a pilot site/demonstration site in Tanzania. Once the pilot is done the lessons learnt will be shared across the region to help them contextualize them in their countries.

Desk Guide on the management of TB in children

The Union's Desk Guide on the management of TB in children, originally published in 2010, has been revised and updated with the main revisions including: dosage charts for the newly available fixed dose combination (FDC) formulations for the treatment of TB in children; inclusion of the use of Xpert in the diagnostic approach to a child with presumptive TB; expansion of the section on diagnostic approach and limitations in children; and inclusion of a section on the approach for management of a child with presumptive MDR TB.

The desk guide can be accessed using the following link:
http://www.challengetb.org/publications/tools/ua/Deskguide_Childhood_TB_2016.pdf

E-learning tool for the management of MDR TB in children

An e-learning tool for the management of MDR TB in children has been finalized; it addresses the management of MDR TB in children with modules including Epidemiology, Diagnosis, Treatment, Prevention, and Practice. The technical input has been provided by very experienced practitioners and leading experts in the management of MDR TB in children as well as expertise in educational and training tools. It is anticipated that this will help health care workers to advance their knowledge on MDR TB management in children and thus leading to improvement on quality of care. The e learning tool can be accessed through https://childhoodtb.theunion.org/courses/CTB2/en/intro

#	Outcome Indicators	Indicator Definition	Baseline (Year/ timeframe)	Target Y2	Result Y2
11.1.3	# of healthcare workers trained, by gender and technical area	**Description:** This indicator measures the number of healthcare workers (which includes health facility staff, community health volunteers, laboratory staff, sputum transport technicians, community-based DOTS workers) trained, by gender and sub-objective. Training includes any in-person, virtual, or on-the-job training that is longer than half a day and for which curriculum is available. This indicator is interchangeable with 'Number of individuals trained in any component of the WHO Stop/End TB Strategy with USG funding' which USAID missions may have as a requirement for internal agency reporting. **Indicator Value:** Number **Level:** National and Challenge TB geographic areas **Numerator:** Number of HCWs trained during the reporting period	0	30	100% (30/30) 30 (18 M,12 F)

4. Challenge TB Support to Global Fund Implementation

Table 3: Current Global Fund TB Grants

Name of grant & principal recipient *(i.e., Tuberculosis NFM - MoH)*	Average Rating*	Current Rating	Total Approved/Signed Amount**	Total Committed Amount	Total Disbursed to Date
QPA-T-ECSA	N/A	Not Available	6,136,774	2,563,924	745,905

In-country Global Fund status - key updates, current conditions, challenges and bottlenecks

The Global Fund regional ECSA project whose objectives are;

- Building regional networks of national TB reference laboratories for inter- state laboratory quality assurance and management in ECSA region
- Improving laboratory service provision for quality assured 1st and 2nd line drug susceptibility testing accessible to all the people in the ECSA region
- Building capacity of national TB reference laboratories to undertake epidemiological/monitoring surveys such as drug resistance surveys and TB disease prevalence

The grant was signed on 27th October 2015 and started on the 1st November 2015. It was launched in December 2015. Baseline assessment has been done in 18 countries and technical assistance for culture

and DST provided to Somalia, Ethiopia and South Sudan. ECSA-HC is the principal recipient while the SNRL in Uganda is a sub recipient.
The Ministry of Health Uganda under which the SNRL falls has signed an MOU with ECSA in August 2016 to enable it to support the SNRL in the GF operations.

Key challenges faced include;

- The recruitment process of lab personnel is slow and thus slowing down the implementation of activities. The recruitment process is being handled by Uganda's ministry of health in conjunction with SNRL
- The procurement of commodities under the global drug facility has also been slow, thus affecting the implementation of activities

Challenge TB involvement in GF support/implementation and any actions taken during Year 2

Challenge TB has so far not been directly involved in the implementation or support of the GF grant. The regional steering committee has been constituted and KNCV has been identified as a member and invited to the first meeting due in November 2016.

5. Challenge TB Success Story

The activities of the CTB EA Region project are at an early stage. The project will actively share success stories during Year 3.

6. Operations Research

No Operations Research was planned or conducted this year.

7. Key Challenges during Implementation and Actions to Overcome Them

Challenge	Actions to overcome challenges
Administrative	
Due to the devolved system of the Kenyan government where counties are autonomous in their operations, the buy-in of relevant county officials is critical prior to commencement of activities in these counties.	The implementation of the cross-border TB initiatives therefore required first contacting the County Health Directors (CHDs) in the selected counties i.e. Turkana, Marsabit and Garissa.
There were administrative delays due to the delay in the registration of the office and the opening of the bank account.	The team put interim arrangements in place to allow for smooth administrative functioning. This included processing payments from HQ, advance payments to staff allowing for small administrative expenditures. In addition, the team was hosted by FHI 360 in the first three months as they completed registration process
Lack of regular flights to travel to border areas. Road travel is a viable, but very time-consuming option.	The team registered with European Commission Humanitarian Organization (ECHO) and Mission Aviation Fellowship (MAF), which provides subsidized flight fares for staff of non-governmental organizations, to be able to travel in a cost-effective manner to the counties.
Insecurity due to civil unrest, banditry or terrorist acts remain a major challenge for the	The project is in the process of finalizing a security plan to support decision making around implementation,

implementation of CTB project activities especially in the Kenya-Somalia border, Ethiopia and South Sudan borders.	monitoring and supervision of project activities in the Region. This will include training on security and appropriate risk mitigation measures while in transit to project areas. The project subscribed to the International NGOs Safety Organization for up to date security alerts in the project areas.

8. Lessons Learnt/ Next Steps

The successes and challenges of the East Africa Region CTB project provide valuable information to guide priorities for future implementation of the activities. The following are the key lessons learnt:

Implementation of a regional project: One of the key lessons learnt during the implementation of the project activities, is that as compared to the country projects, the pace of implementation of activities is a bit slower, given that for the activities to happen there must be buy in from the different countries involved. This calls for intensive advocacy and continuous communications with the different countries.

Cross border TB control activities: From the activities conducted so far one of the key lessons learnt is that for the cross-border activities to be successful, all the key players such as the immigration officials, security officials, national health officials, district and county health officials, NTPs and partners working in the area need to be involved. Furthermore, a cross border committee should be in place on both sides of the countries involved to ensure that there is communication amongst them for easier follow up of the issues that are beyond the scope of individual countries. With this in mind, the project provides guidance on the formation of the cross-border committees which will be instrumental in the implementation of key elements of the CBI such as tracing of people who were lost-to-follow-up, contact tracing and reporting

Inclusion of Key stakeholders: The regional NTPs managers meeting held in Nairobi, bringing on board the NTP managers across the region and other key stakeholders in the TB field provided an opportunity for the finalization of critical documents to be used by the project in the region within a very short time. This also presented an opportunity for NTP managers to contribute on how the Cross-border initiative (CBI) can be implemented in their respective countries and potential challenges to mitigate. Thus, the project will continue using this approach- to engage the NTP on other components of the project where their input is critical to ensure that key outputs are realized within stipulated time frames and to enhance the collaborative spirit that is needed for the success of the project.

Security: Security issues remain a major concern in some of the border areas and can affect the implementation of activities. Therefore, one of the lessons learnt during the CTB EA project implementation is that there is need to work closely with the government officials, partners on the ground, KNCV head office and safety organizations such as the International NGOs Safety Organization to ensure that we receive regular updates of the security situation on the ground to inform the planning of activities.

Drug and commodity management systems: From the technical assistance conducted in Tanzania, one of the key lesson learnt is that Tanzania has a clear strategy on electronic health management information systems and this facilitates better organization of partners who provide technical assistance related to information management systems. In addition, District Health Information system (DHIS2) and electronic logistics management information system(eLMIS) are already in use. Information generated from the two systems should be able to feed into the ECSA supply chain portal.

Next Steps

Enabling Environment: The project will expedite the implementation of an effective inter-country referral system and establish cross-border TB demonstration sites in five high volume border areas

(KE/SOM, KE/ET, KE/SS, KE/UG, and KE/TZ) up from four sites planned in year two with the inclusion of Kenya-Tanzania border and support regional meetings for coordination. The cross-border meetings will be jointly organized with relevant other stakeholders as an effort to leverage resources and effort. CBOs will also be selected and sub-awarded to support day to day implementation of cross border activities.
The project will also advocate to NTPs and USAID country projects to factor in cross border TB control.

Comprehensive, high quality diagnostics: Following the distribution of the lab bio safety SOPs in Somalia, the East Africa Region CTB project in partnership with the SNRL will provide technical assistance for the implementation at the zonal level. The SNRL and other partners will thereafter support the scale up to the rest of the lab network.

Patient-centered care and treatment: The project will operationalize the policy of managing patients with X-MDR-TB treatment failure by developing a demonstration site for the management of such patients. This will also leverage on the introduction of new drug containing regimens (using Bedaquiline and Delaminid) and will focus on Somalia which is a non-USAID presence country. At the same time expertise, will be brought in on palliative care from other disease areas such as cancer management.

Drug and commodity management systems: The East Africa Region CTB project will support the operationalization of the medicines (monitoring) portal/dashboard at ECSA-HC to facilitate timely identification of countries with surplus or second line anti-TB drugs (SLDs) having a short expiry time and redistribute these in the region. Roll out of the electronic platform that will be used to capture, collate, and create reports to disseminate TB commodities supply chain information including stock status, pipeline monitoring and selected supply chain key performance indicators (KPIs) will be done in Rwanda and Uganda in addition to Tanzania which has already started piloting the portal. The countries will be required to update the database at least quarterly. A focal person at ECSA will provide needed support to countries to ensure that reporting is accurate and timely. The project will collaborate with the regional Global Drug Facility(GDF) technical adviser to ensure early identification of warning signs and redistribution/exchange of medicines.

Human resource development: Detailed mapping of training institutions offering TB courses will be finalized. The process of capacity building of these training institutions will be initiated to develop them into Centers of Excellence and link them to the proposed Institute for Infectious Disease at ECSA College of Health Sciences. The quality of trainings will be improved by reviewing and updating the curricula regularly.

Training of tutors on TB will be conducted for selected tutors from pre-service nursing schools using the newly updated curriculum in Tanzania. The tutors will then use the content to revise their institution's curriculum and use it to teach. The training will target the senior years. The competencies of the students trained under the new curriculum will be monitored longitudinally two years after graduation with the nursing council, ECSA-HC and partners, with results documented and experience shared at the ECSA-HC forum for adoption by other countries in year 5.

Piloting of the Childhood TB for healthcare workers' e-learning course facilitator guide will be conducted in Uganda in APA 3 During this pilot, online training will be administered to a cohort of primary level healthcare workers, followed by a 2-day face-to-face training with them. Once the pilot testing of these trainings has been completed, the guide will be revised based on the feedback acquired.

Annex I: Status of EMMP activities

Given the scope and the nature of the East Africa region CTB project the activities majorly conducted during the year were sensitizations and trainings and thus had no environmental impact. In addition, the project is not directly involved in the procurement or handling of public health commodities, there is no construction planned and there is no direct generation of medical waste.